

# Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416 415



**Credit System for**

**T.Y. B.Tech. (Civil Engineering)**

**Sem-V and VI**

**AY 2023-24**



# Walchand College of Engineering

(Government Aided Autonomous Institute)

## Credit System for T.Y. B.Tech. (Civil Engineering) Sem-V AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr.	MSE/LA1	ISE/LA2	ESE	Ext
<b>Professional Core (Theory)</b>													
01	PC	6CV301	Water Supply and Treatment Technology	3	0	0	0	3	3	30	20	50	
02	PC	6CV302	Soil Mechanics	3	0	0	0	3	3	30	20	50	
03	PC	6CV303	Transportation Engineering	3	0	0	0	3	3	30	20	50	
04	PC	6CV304	Design of Steel Structures	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
05	PC	6CV351	Water Quality Analysis Lab	0	0	2	0	2	1	30	30	40	POE
06	PC	6CV352	Soil Mechanics Lab	0	0	2	0	2	1	30	30	40	OE
07	PC	6CV353	Highway Materials and Traffic Engineering Lab	0	0	2	0	2	1	30	30	40	OE
08	PC	6CV355	Presentation and Report Writing	0	0	2	0	2	1	30	30	40	
<b>Professional Elective (Theory)</b>													
08	PE	Refer List	Elective-1	2	0	0	0	2	2	30	20	50	
<b>Open Elective</b>													
09	OE	Refer List	Open Elective-1	3	0	0	0	3	3	30	20	50	
<b>Humanities</b>													
10	HS	6HS301	Employability Skills 1	0	0	2	0	2	1	30	30	40	
11	HS	Refer List	Humanities-1	0	0	0	2	2	2	30	30	40	
<b>Total</b>				<b>17</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>29</b>	<b>25</b>				

**Notes:**

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing.

For Lab courses: There shall be continuous assessment (LA1, LA2, ESE). The ESE is a separate head of passing. The POE/OE indicates external component for ESE.

**For further details, refer to Academic and Examination rules and regulations.**



Dr. A. K. Mali  
Department Academic Coordinator



Dr. G. R. Munavalli  
Head, Department of Civil Engineering



11/8/2023

Dr. Mrs. S. P. Sonavane

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Vishrambag, Pune - 415 415



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**Elective Course List for T.Y. B.Tech. (Civil Engineering) Sem-V AY 2023-24**

Sr. No.	Track	Course Code	Course Name
<b>Elective-1</b>			
01	Transportation Engineering	6CV311	Remote Sensing and GIS
02	Environmental Engineering	6CV312	Plastic and Electronic Waste Management
03	Environmental Engineering	6CV313	Air and Noise Pollution Control
04	Infrastructure Engineering	6CV314	River Engineering
05	Infrastructure Engineering	6CV315	Advanced Surveying
06	Structural Engineering	6CV316	Structural Mechanics
07	Structural Engineering	6CV317	Advanced Concrete Technology
08	Infrastructure Engineering	6CV318	Airport Engineering

Sr.No.	Offering Dept.	Course Code	Course Name
<b>Open Elective-1</b>			
01	Civil Engg.*	6OE301	Building Planning and Construction
02	Civil Engg.*	6OE302	Disaster Management
03	Applied Mechanics Dept *	6OE315	Theory of structures
04	Mechanical Engg.	6OE329	Non-Conventional Machining Processes
05	Electrical Engg.	6OE343	Electrical Machine Technology
06	Electronics Engg.	6OE357	Introduction to Electronic Systems
07	Electronics Engg.	6OE358	Signals and Systems
08	CSE Engg.	6OE371	Data Science
09	IT Engg.	6OE385	Cloud Computing System
10	IT Engg.	6OE386	Joy of Python Programming
11	IT Engg.	6OE387	Data Science for Engineers

Sr.No.	Course Code	Course Name
<b>Humanities-1</b>		
01	6HS303	German Language
02	6HS304	French Language
03	6HS305	Japanese Language
04	6HS306	Introduction to Entrepreneurship

\* Open Elective-1 offered by Civil Dept. is allowed for students of all other departments (Except Civil Dept.)

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## Credit System for T.Y. B.Tech. (Civil Engineering) Sem-VI AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
<b>Professional Core (Theory)</b>													
01	PC	6CV321	Waste Management and Pollution Control	3	0	0	0	3	3	30	20	50	
02	PC	6CV322	Quantity Survey and Valuation	3	0	0	0	3	3	30	20	50	
03	PC	6CV323	Foundation Engineering	3	0	0	0	3	3	30	20	50	
04	pc	6CV324	Design of Reinforced Concrete Structures	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
05	PC	6CV371	Sewerage and Sewage Treatment Lab	0	0	2	0	2	1	30	30	40	OE
06	PC	6CV341	Mini-Project 2: Estimating and Costing	0	0	2	0	2	1	30	30	40	OE
07	PC	6CV342	Mini-Project 3: Design and Drawings of Steel Structures	0	0	2	0	2	1	30	30	40	OE
<b>Professional Elective (Theory)</b>													
09	PE	Refer List	Elective-2	2	0	0	0	2	2	30	20	50	
<b>Professional Elective (Lab)</b>													
09	PE	Refer List	Elective Lab 1	0	0	2	0	2	1	30	30	40	
<b>Open Elective</b>													
10	OE	Refer List	Open Elective-2	3	0	0	0	3	3	30	20	50	
<b>Humanities</b>													
11	HS	6CV377	Humanities-2 - Project Management	0	0	0	2	2	2	30	30	40	
11	HS	6HS302	Integrated/ Employability Skills-2	0	0	0	2	2	2				
<b>Total</b>				<b>17</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>29</b>	<b>25</b>				

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## Elective Course List for T.Y. B.Tech. (Civil Engineering) Sem-VI AY 2023-24

Sr.No.	Track	Course Code	Course Name
<b>Professional Elective-2</b>			
01	Environmental Engineering	6CV331	Industrial and Biomedical Waste Management
02	Environmental Engineering	6CV332	Advances in urban water distribution system
03	Hydraulics and Water Resources Engineering	6CV333	Watershed Management
04	Infrastructure Engineering	6CV334	Town and Country Planning
05	Infrastructure Engineering	6CV335	Design of Masonry Structures
06	Structural Engineering	6CV336	Advanced Structural Analysis
07	Transportation Engineering	6CV337	Bridge Engineering
<b>Elective Lab 1</b>			
01	Structural Engineering	6CV372	Advanced Concrete Technology Lab
02	Environmental Engineering	6CV373	Municipal Solid Waste Management Lab
03	Infrastructure Engineering	6CV374	Design of Hydraulic Structure Lab
04	Infrastructure Engineering	6CV375	Advanced Surveying Lab
05	Infrastructure Engineering	6CV376	Foundation Engineering Lab
06	Structural Engineering	6CV377	Concrete Technology Lab <sup>##</sup>

Sr.No.	Offering Dept.	Course Code	Course Name
<b>Open Elective-2</b>			
01	Civil Engg.*	6OE308	Ecology
02	Civil Engg.*	6OE309	Solid Waste Management
03	Applied Mechanics Dept *	6OE322	Maintenance and Rehabilitation of Structures
04	Mechanical Engg.	6OE336	Basics of Automobile Engineering
05	Electrical Engg.	6OE350	Industrial Automation
06	Electronics Engg.	6OE364	Cyber Physical Systems
07	Electronics Engg.	6OE365	Biomedical Engineering
08	CSE	6OE378	Soft Computing
09	IT	6OE392	Web Development and Applications
10	IT	6OE393	Fundamentals of Machine Learning
11	IT	6OE394	Remote Sensing and Geographical Information Systems

\* Open Elective-2 offered by Civil Dept. is allowed for students of all other departments (Except Civil Dept.)

## - for 2023-24 batch only



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